

REMARKS

This application has been reviewed in light of the Office Action dated June 6, 2002. Claims 1-33 are pending in the application. In the Office Action, Claims 3-9, 14 and 18-24 were rejected under 35 U.S.C. §112, second paragraph as allegedly being indefinite for lack of antecedent basis. Claims 1, 10-13, 15, 16, 25-31 and 33 were rejected under 35 U.S.C. §102(b) as allegedly being anticipated by U.S. Patent No. 5,254,883 issued to Horowitz et al. ("Horowitz"). Claims 2, 17 and 32 were objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. In this reply, Claims 1-3, 16-18, 29, and 31-32 are amended.

35 U.S.C. §112, Second Paragraph Rejection

With regard to 35 U.S.C. §112, second paragraph rejection, Claims 2, 17, and 32 are amended to be in independent form. Claim 3 has been amended to depend from Claim 2 that provides an antecedent basis for "limiter circuit" recited in Claim 3. Claims 3-9, and 14 depend from Claim 2, and Claims 18-24 depend from Claim 17. Accordingly, it is submitted that Claims 2-9, 14, 17-24, and 32 are now in condition for allowance.

35 U.S.C. §102(b) Rejection

With regard to 35 U.S.C. § 102(b) rejection, it is submitted that Horowitz does not disclose or suggest every element claimed in independent Claims 1, 16, and 29 as amended. For example, Horowitz does not disclose or suggest generating an output control signal to control a charge pump as recited in Claims 1, 16, and 29.

Rather, Horowitz is directed to a current driver bus system. Horowitz's Figure 6, which is cited in the Office Action, appears to disclose signals output by transistor arrays (127). In Horowitz, the voltage of the signal output by the transistor array (127) at node

(130) is compared to a reference voltage for controlling the signals input to the transistor array itself via lines 137a-137e. Thus, contrary to the assertions made in the Office Action, the signals output by the transistor array (127) of Horowitz are not control signals for controlling a charge pump of a voltage generator system.

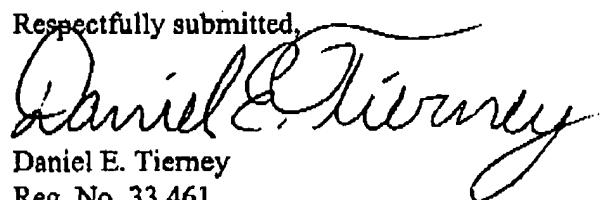
Hence, Horowitz does not disclose or suggest "means for generating at least one output control signal using at least a signal outputted by the series of bias stages; and means for outputting the at least one output control signal to the control circuit of the voltage generator system for controlling the control circuit to control the charge pump in accordance with the at least one input control signal," as claimed in Claim 1. Similarly, Horowitz does not disclose or suggest "means for outputting the at least one output control signal to the means for controlling the means for charge pumping of the voltage generator system for controlling the means for controlling the means for charge pumping in accordance with the at least one input control signal," as claimed in Claim 16. Likewise, Horowitz does not disclose or suggest "means for generating an output control signal to the control circuit to control the charge pump of the voltage generator system for controlling the control circuit in accordance with the input control signal," as claimed in Claim 29.

For at least the foregoing reasons, it is submitted that independent Claims 1, 16 and 29 are patentable over Horowitz. Claims 10-13 and 15 depend from Claim 1, Claims 25-28 depend from Claim 16, and Claims 30, 31 and 33 depend from Claim 29. Therefore, for at least the same reasons given for independent Claim 1, 16 and 29, Claims 10-13, 15, 25-28, 30, 31 and 33 are believed to be in condition for allowance. Accordingly, an early allowance of these claims is respectfully requested.

Attached is a marked-up version of the changes made to the claims by the current amendment according to 37 C.F. R. §1.121. The attached page is captioned "Version with Markings to Show Changes Made."

If the Examiner should have any questions concerning this communication or feels that an interview would be helpful, the Examiner is requested to call the Applicants' undersigned attorney at the number indicated below.

Respectfully submitted,



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Version with Markings to Show Changes Made

IN THE CLAIMS:

Please amend Claims 1-3, 16-18, 29, and 31-32 as follows:

1. (Once Amended) A programming circuit for controlling a control circuit controlling a charge pump of a voltage generator system, wherein the programming circuit comprises:

means for receiving at least one input control signal;

means for processing the at least one input control signal using at least a series of bias stages;

means for generating at least one output control signal using at least a signal outputted by the series of bias stages; and

means for outputting the at least one output control signal to the control circuit of the voltage generator system for controlling the control circuit to control the charge pump in accordance with the at least one input control signal.

2. (Once Amended) [The] A programming circuit [according to claim 1] for controlling a control circuit of a voltage generator system, wherein the programming circuit comprises:

means for receiving at least one input control signal;

means for processing the at least one input control signal using at least a series of bias stages;

means for generating at least one output control signal using at least a signal outputted by the series of bias stages; and

means for outputting the at least one output control signal to the control circuit of the voltage generator system for controlling the control circuit in accordance with the at least one input control signal,

wherein the control circuit of the voltage generator system includes a limiter circuit and an oscillator circuit, and the output control signal controls at least one of the limiter circuit and the oscillator circuit.

3. (Once Amended) The programming circuit according to claim [1] 2, wherein a first input control signal of the at least one input control signal is configured for generating a first output control signal of the at least one output control signal for controlling the limiter circuit of the control circuit and a second input control signal of the at least one input control signal is configured for generating a second output control signal of the at least one output control signal for controlling an oscillator circuit of the control circuit.

16. (Once Amended) A programmable DC voltage generator system having at least one voltage generator system, a voltage generator system of said at least one voltage generator system comprising:

means for charge pumping;

means for controlling the means for charge pumping; and

means for programming including:

means for receiving at least one input control signal;

means for processing the at least one input control signal using at least a series of bias stages;

means for generating at least one output control signal using at least a signal outputted by the series of bias stages; and

means for outputting the at least one output control signal to the [control circuit] means for controlling the means for charge pumping of the voltage generator system for controlling the [control circuit] means for controlling the means for charge pumping in accordance with the at least one input control signal.

17. (Once Amended) [The] A programmable DC voltage generator system [according to claim 16] having at least one voltage generator system, said at least one voltage generator system comprising:

means for receiving at least one input control signal;

means for processing the at least one input control signal using at least a series of bias stages;

means for generating at least one output control signal using at least a signal outputted by the series of bias stages; and

means for outputting the at least one output control signal to the control circuit of the voltage generator system for controlling the control circuit in accordance with the at least one input control signal,

wherein the control circuit of the voltage generator system includes a limiter circuit and an oscillator circuit, and the output control signal controls at least one of the limiter circuit and the oscillator circuit.

18. (Once Amended) The system according to claim [16] 17, wherein a first input control signal of the at least one input control signal is configured for generating a first output control signal of the at least one output control signal for controlling the limiter circuit of the control circuit and a second input control signal of the at least one input control signal is configured for generating a second output control signal of the at least one output control signal for controlling an oscillator circuit of the control circuit.

29. (Once Amended) A programming circuit for controlling a control circuit controlling a charge pump of a voltage generator system, wherein the programming circuit comprises:

means for receiving an input control signal having a value selectable from a range of values, wherein the input control signal is generated external to the voltage generator system;

means for processing the input control signal; and

means for generating an output control signal to the control circuit to control the charge pump of the voltage generator system for controlling the control circuit in accordance with the input control signal.

31. (Once Amended) The programming circuit according to claim 29, wherein the input control signal is configured for indicating at least one of a target output voltage for the voltage generator system and a pumping speed for [the] an oscillator circuit.

32. (Once Amended) [The] A programming circuit [according to claim 31] for controlling a control circuit of a voltage generator system, comprising:

means for receiving an input control signal having a value selectable from a range of values, wherein the input control signal is generated external to the voltage generator system;

means for processing the input control signal; and

means for generating an output control signal to the control circuit of the voltage generator system for controlling the control circuit in accordance with the input control signal,

wherein the control circuit of the voltage generator system includes a limiter circuit and an oscillator circuit, and the output control signal controls at least one of the limiter circuit for disabling the oscillator circuit upon reaching [the] a target output voltage, and the oscillator circuit for controlling [the] a pumping speed of the oscillator circuit.